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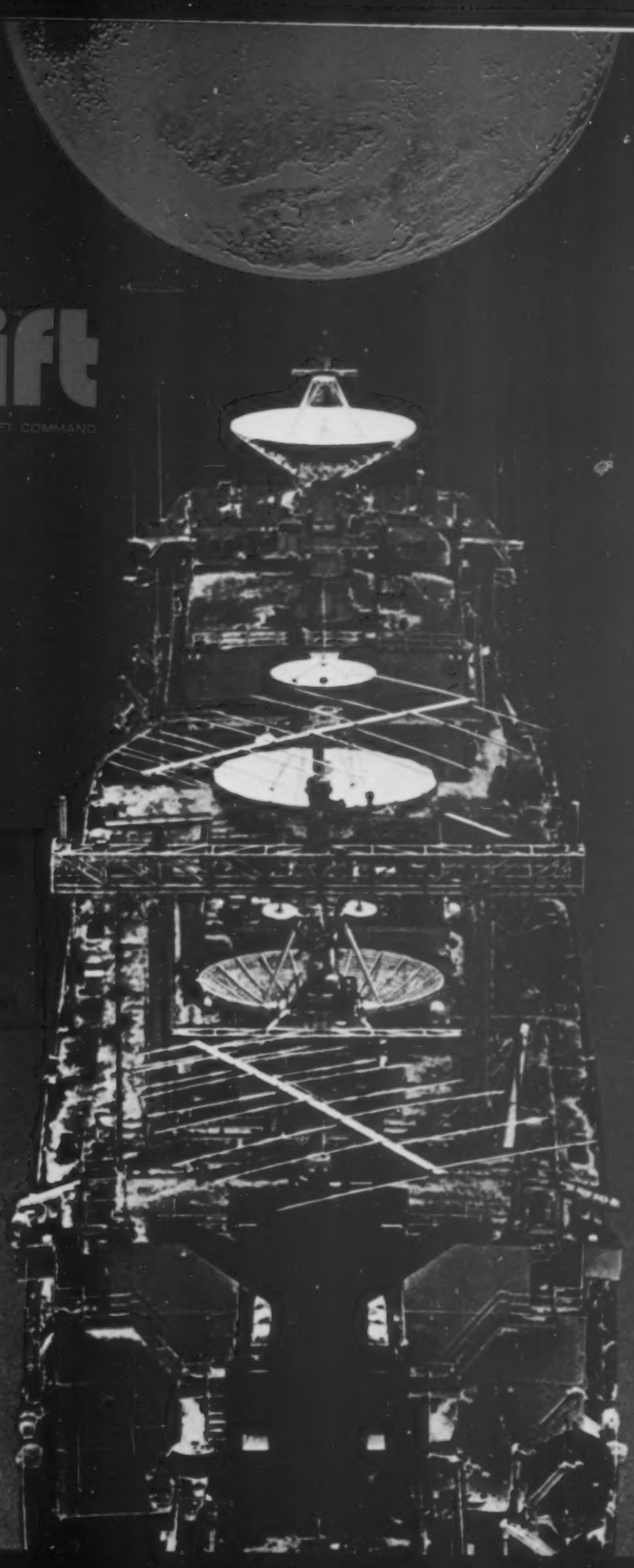
Sealift

MAGAZINE OF THE MILITARY SEALIFT COMMAND

NOVEMBER 1976



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DEPOSITORY
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Safety Demands Teamwork

During the first seven months of this year, the MSC command-wide marine accident rate was 2.58 accidents for every million manhours. That is less than half the frequency rate for U.S.-flag commercial ships.

That record is not unusual. In 1974, the MSC accident frequency rate for ships manned by Civil Service mariners was 3.4 accidents for each million manhours. The maritime industry rate was 4.95. In 1975, safety conscious MSC mariners had only 3.08 accidents per million manhours, well below the industry rate which again was 4.95. During the first six months of 1976 the MSC rate was 2.35 while the industry rate rose to 6.76.

It is often said that statistics do not lie, only statisticians, and that those proficient in mathematical computations can prove almost any point of view with the same data.

There is probably some truth to that view. However, the MSC safety record over the long term provides ample evidence that command mariners are well-trained safety-conscious professionals who understand the tragic consequences of accidents.

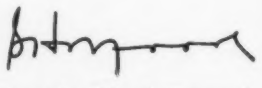
A ship's crew is a team, a group of people who literally trust their lives to one another. Poor judgment, lack of competence, or disregard of dangers inherent to the seagoing profession can easily jeopardize the life of the transgressor and the lives of his shipmates as well.

Because MSC mariners do understand the tragic results of poor safety practices, the MSC safety program is built on a very solid and effective base—direct involvement by each individual. Management can develop safety programs, direct that safety meetings be held, show appropriate films, and post slogans and posters throughout a ship. However, management cannot direct the movements, actions and minds of people.

Just as an unwilling subject cannot be hypnotized, supervisors can do no more than provide information and guidance which can help individuals develop their own attitudes and practices. A successful safety program is more a direct reflection of the attitudes and practices of the man on the job than the efforts of those responsible for conceiving and implementing safety programs.

I am very proud of the safety record compiled by more than 3,500 MSC mariners. Your efforts have prevented the loss of productive manhours, and have increased command efficiency. More important, however, is the prevention of loss of limb or life, and the forestalling of human tragedy that is associated with each serious accident.

I extend my congratulations to all of those who have contributed to this outstanding record, and am confident that we can continue to reduce the number of accidents in the future as we have in the past three years.



Commander, Military Sealift Command

COVER: A little imagination and an artist are all that are needed to launch USNS Vanguard on a flight to Mars. See story on page 4.

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Sealift

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Features:

Probing Space

Instrumentation ship USNS Vanguard is a link between earth and men in space.

page 4

No Ordinary Observer

Personnel official gets first hand knowledge of work aboard the stores ship Rigel.

page 8

USNS Wilkes

When Wilkes goes to sea, it serves as a technological center for oceanographic and geophysical surveys.

page 11

Also:

Tugboatman – 15
Rescue at Sea – 18
Computer People Move – 20
Sea Shells – 22

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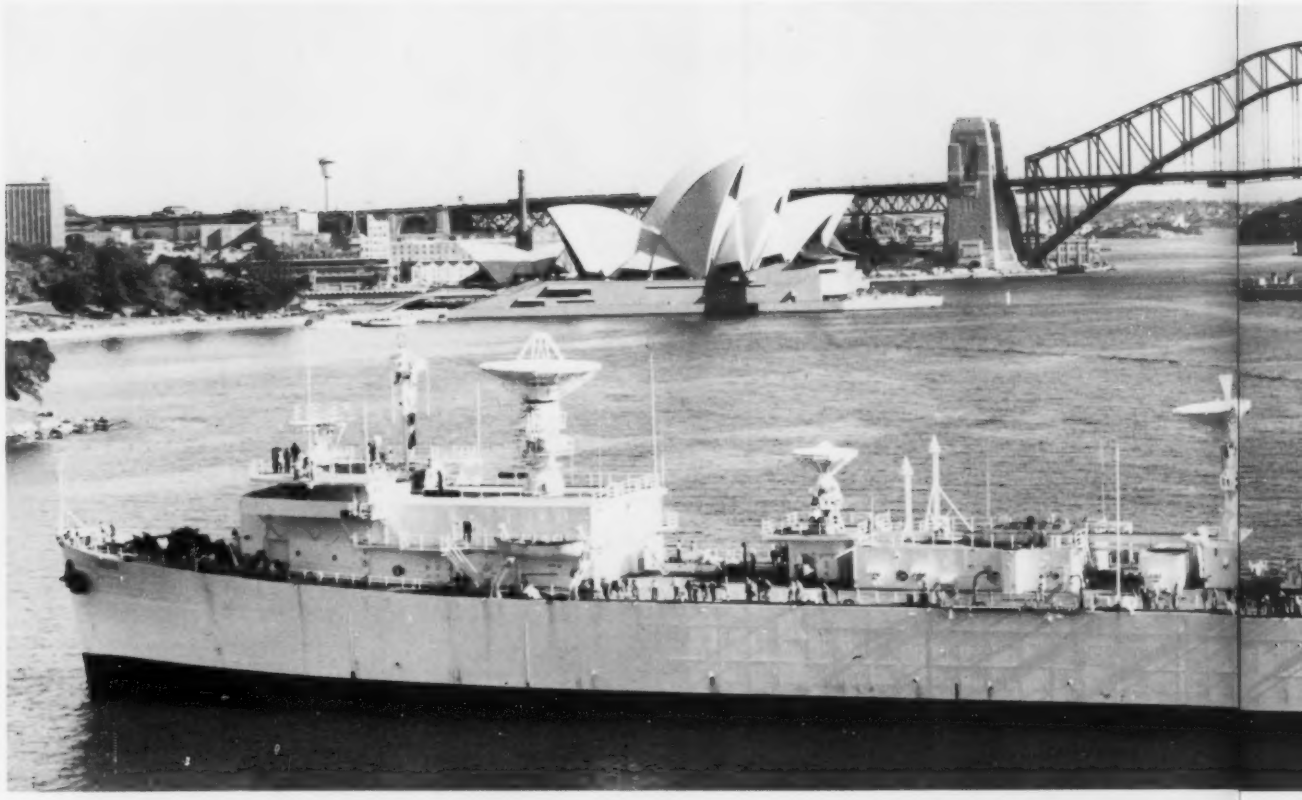


After stopping for provisions in Sydney, Vanguard heads out to sea for the Viking mission in August 1975.

From Moon to Mars

By Louis Panarale

In this age of consumer throwaway items, it helps to remember that some ships are like good violins. They get better and more valuable with age.

USNS Vanguard is an instrumentation ship in Military Sealift Command's special projects fleet. Looking at the sleek vessel with the four space-age dish antennae on its deck, it is hard to remember that it originally was a World War II tanker.

For the past decade, MSC has operated the ship with a Civil Service crew while National Aeronautics Administration (NASA) technicians handled shipboard functions in support of that agency's space program. The vessel has been used as a seagoing station in NASA's earth support network for both manned and unmanned space flights.

Vanguard has been called a "Moon Ship" because of its participation in Apollo missions that eventually put men on the moon. Today the MSC vessel could claim the title of "Mars Ship" since the instrumentation ship has been supporting the flight and landing of space probe vehicles on Mars.

Since Galileo invented the astronomical telescope in 1608, the planet Mars has excited man's imagination almost as much as have the sun and the moon.

In the 17th and 18th centuries, many believed that Mars was inhabited by intelligent beings. In 1877 the discovery of "canals" on Mars strengthened the views of those who felt civilized societies might exist on the far-away planet.

American astronomer Percival Lowell believed the canals were the work of "intelligent creatures, alike unto us in spirit but not in form." His writings about the canals and possible life on Mars created great public excitement near the turn of the 20th century.

Speculation about life on Mars continued through the first part of

this century, but scientists have gradually become more skeptical.

The skepticism was reinforced by data gathered by unmanned space vehicles in the 1960s. The National Aeronautics and Space Administration conducted the Mariner probes. These missions to Mars—one in 1965 and two in 1969—indicated Mars was a lunar-like planet with a uniformly cratered surface.

The Mariner missions produced clear evidence of an environment far more hostile than scientists had imagined and that Mars is a very dynamic and evolving planet.

In 1971–72, the Mariner 9 orbiting spacecraft took 7,000 pictures of the Martian surface that once and for all dispelled the fanciful 19th century vision of a planet inhabited by little green people with oversized heads, bug eyes and webbed feet. There are no canals but instead vast canyons where water may have flowed at one time.

The photos gave no evidence of vegetation. But, the presence of life on Mars has not been completely ruled out. The living things that scientists think might possibly exist are organisms, the composition of which may be beyond man's comprehension.

This summer an epochal event in human history took place. Two unmanned vehicles named Viking 1 and 2 have been landed on Mars. Their activities have been controlled and monitored from NASA control centers on earth.

Scientists are hoping that the Viking spacecrafts, which left earth on a 440-million-mile, one-year journey to Mars, will provide the first direct evidence of extraterrestrial life.

The Viking landers have scoop arms that pick up soil which is tested in mini-laboratories in the vehicle. Scientists have even improvised a maneuver in which Viking 2 would move a large rock. The scientists believe that a sample of the soil shielded by rocks from ultraviolet rays is more likely to harbor living organic matter.

"We do not know what Viking will find," said Carl Sagan, director of laboratory and planetary studies, Cornell University, Ithaca, N.Y. "But our previous space experience is that every time we look more closely at Mars we find astonishments and delights."

Sagan noted that 1977 will be a centenary of the discovery of the "canals" on Mars. "By 1977 conclusions drawn from Viking gathered data should be known. In a hundred years we will have gone from vague observations and wishes disguised as conclusions to the first rigorous detailed and scientific examination of the surface of another planet.

Viking represents the opening of a new era in planetary exploration."

Viking has been an expensive program costing almost $1 billion and occupying hundreds of scientists and engineers for years, some for more than a decade.

As plans were made for the first Viking launch, NASA called upon Military Sealift Command to supply an instrumentation ship to fill a void in the worldwide monitoring network. Instrumentation ships are mobile and can be positioned to provide coverage beyond the area of land stations. NASA officials have called the overall network "the difference between survival and disaster."

The ship chosen for the Viking mission was the USNS Vanguard, by no means a newcomer to NASA space programs. First of three MSC ships initially designed for lunar exploration programs, Vanguard began service with MSC in June 1966.

Vanguard did not always look like the sophisticated ship it is today. The former World War II tanker had its mid-section cut out and replaced by a longer one which houses NASA electronics and communications gear. The ship was dubbed "Little Houston" because it had the tracking, telemetry, data processing and communications equipment that complemented that in NASA's Manned Space Control Center in that Texas city.

When delivered to MSC, the ship carried enough electronic hardware to fill a football field. Through the 10 years the ship has been with the MSC fleet, equipment on Vanguard periodically has been modified and replaced to fulfill demands of increasingly more intricate NASA space missions.

The two Viking launches were made from the Kennedy Space Center, Cape Canaveral, Fla., in August and September 1975. A launch later than September 20 would have required a 23-month delay extending into 1977.

"NASA has a very good launch record, but there has never been as complex a scientific mission as Viking," Sagan noted. The launch vehicle for each Viking was a Titan 3E and a Titan booster with a Centaur second stage, a configuration tried only twice before.

Vanguard is the only instrumentation ship used in support of the Viking flights. The ship was prepared months in advance with the new instrumentation necessary for the tracking, telemetry, communications and computer functions of the mission. NASA's Goddard Space Flight Center at Greenbelt, Md. provided the new systems.

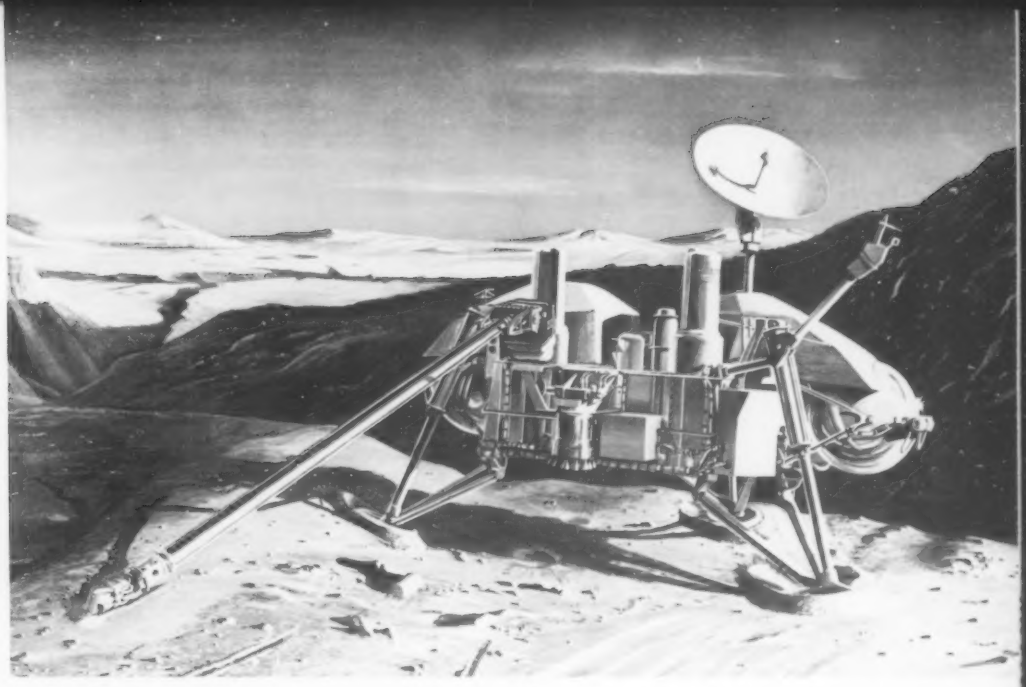
Packed into Vanguard are 450 tons of complex electronic equipment valued at more than $45 million. NASA technicians on the ship can track space vehicles 32,000 nautical miles away from earth on "C-band" equipment and 540,000 miles using "S-band."

"In August 1975, Vanguard was stationed in the Indian Ocean, about 200 miles southeast of Madagascar, to provide coverage for the first of the two Viking launches. The 85 MSC Civil Service crew members and the 75 NASA technicians were fresh and ready to go after a 10-day stop in Sydney, Australia where Vanguard was reprovisioned. They had just returned from Tahiti where Vanguard provided support for the Apollo-Soyuz space flight conducted jointly by the United States and the Soviet Union.

"The crew and technicians really felt the tension when time came for the Viking launch," said Anthony Guizeraga, chief engineer of Vanguard. "Everybody wanted to do a professional job to help make the mission a success. I think we did an outstanding job."

Vanguard was assigned the task

Vanguard may have a role in guiding NASA's first space shuttle Enterprise on its maiden earth-orbiting flight.



A scoop arm picks up soil for testing in Viking laboratory.

of monitoring Viking shortly after the launch. At that point the Viking spacecraft separated from the launch vehicle which was put into a retro maneuver to get out of Viking's way. The maneuver was one of the last critical steps in getting the space vehicle free to begin its year-long journey to Mars.

Guizeraga is one of the veterans of Vanguard. The MSC Civil Service mariner has been with the ship since 1969, the year that man first set foot on the moon. Vanguard played a big role in the Apollo program which sent men to the moon and returned them safely to earth.

Many systems had to be developed and put through rigorous tests before the mission could be started. Vanguard provided vital tracking and two-way contact between the astronauts and mission control at Houston, as part of the worldwide network of monitoring stations.

In May 1973, three astronauts were launched into space aboard Skylab, part of a $2.5 billion program which helped advance techniques for surveying earth resources from space. The mission demonstrated man's ability to live and work in space for long periods.

The three Skylab astronauts were in the largest spacecraft ever put into earth orbit by NASA up to that time. Their experiments and virtually every moment of their lives in space were monitored by technicians manning equipment aboard Vanguard.

Vanguard then was stationed at Mar del Plata, Argentina and the ship's four giant dish antennae were used to send and receive Skylab voice communications which were relayed to and from mission control via satellite. Meanwhile, Vanguard's computers collected a wealth of data from Skylab.

In July 1975, just a month before the Viking mission, Vanguard took part in the Apollo-Soyuz space flight. It was a 10-day mission in which American astronauts and Soviet cosmonauts rendezvoused and docked their two space vehicles to conduct joint experiments. Vanguard was one of the worldwide network of stations tracking the vehicles and collecting data.

Today, at its home base in Port Canaveral, Vanguard has had equipment changes in preparation for NASA missions in 1977. Among NASA's more ambitious programs is the Mariner Jupiter-Saturn mission. Two spacecraft will be launched, one in August and the second in September, to observe Jupiter and Saturn.

In 1979, the Enterprise—NASA's first reusable spacecraft—is scheduled to begin earth orbital flights. Enterprise is designed to be used as many as 100 times. The stubby 122-foot spacecraft, about the size of a DC–9 commercial jetliner, was put on display in September at Palmdale, Calif. The space shuttle, described as "part spacecraft, part launch vehicle and part airplane," can transport passengers into space and be flown back to earth—landing in much the same manner as an aircraft.

First plans were to call the orbiter the Constitution. But President Gerald Ford changed the name to Enterprise after a letter-writing campaign from fans of "Star Trek," a science fiction television program. Enterprise is the name of Star Trek's fictional spaceship on a five-year mission to explore space.

An official at NASA's tracking and data acquisition office in Washington, D.C. said there is a possibility that an MSC instrumentation ship will be used to support Enterprise flights.

When the time comes for the space shuttle to make its maiden voyage, the MSC former World War II tanker will be ready to write MSC into another chapter of the history of space exploration. ⚓

Photos by Joseph Marcucci

Cargo
a pallet
carrier

Getting It First Hand Aboard the Rigel

By Linda Quinones

Robert Lord at first couldn't remember when he last worked aboard a ship like he did this summer on the USNS Rigel. He thought a moment, smiled and said, "It's been over 30 years, back during World War II. Some things have changed, but others haven't."

Lord, a personnel management specialist in Military Sealift Command's classification, wage and manning division, visited the MSC operated and Civil Service manned fleet support refrigerated stores ship in June. Purpose was to evaluate manning requirements and personnel utilization, but he was not an "on-the-sidelines" observer.

When he boarded the ship in Rota, Spain, Lord asked Capt. Manuel Vieira for a set of work clothes. "Some people can stand around and understand what's going on, but not me. I like to take part, to get a feel for the job and what it requires."

While aboard Rigel, Lord worked in the areas where refrigerated stores and dry stores were stowed. "In the refrigerated areas," he said, "naturally its chilly, just above freezing. At other levels in the holds, where the dry stores are, it's hot. So, after working a few hours with dry stores, you wish you were working with refrigerated ones, and vice versa. Neither area is comfortable."

Lord followed the same work schedule as the ship's crew throughout his stay aboard Rigel. Often that meant getting up in the middle of the night.

He was soon at work for shortly after the Rigel sailed from Rota, Rigel and USS Sylvania consolidated stores. The only stores ship MSC operates, Rigel replenishes Sixth Fleet vessels in the Mediterranean. Sylvania is a Navy-manned stores ship.

During the consolidation, Lord worked with breakout teams in Numbers 1, 2, 3 and 4 holds handling and stowing dry and frozen stores received from Sylvania.

"To move pallet loads of cargo in the holds," Lord said, "battery-powered forklifts were lowered into the hold. I was surprised to find that the forklift battery is lowered separately. Reason is the weight and center of gravity of the forklift plus the battery make it difficult to lower the whole unit. Removing the battery, lowering the forklift and

Cargo lines the Rigel deck as a pallet load is passed to the carrier USS America.

reinstalling the battery take about 40 minutes and requires a coordinated effort between the men on deck and those in the hold."

While stores were being received from the Sylvania, they were checked for quantity and condition. That sometimes required breaking down pallets for an item count prior to stowage in Rigel stores space.

"During a replenishment the entire ship's crew is involved. Crewmen from all departments work as cargo checkers, winch drivers, forklift operators and phone talkers, or pass messages to the skipper on the bridge or the cargo officer. Others work as cargo sling-men and strappers. To handle a peak workload during a consolidation, everyone must pitch in and there is continuing activity throughout the ship."

As soon as the initial consolidation with Sylvania had been completed and the stores identified and stowed, staging operations began for a vertical replenishment next day with the MSC-operated fleet support oiler USNS Waccamaw. In a vertical replenishment, stores are positioned on the Rigel helicopter deck aft and then lifted by a helicopter to the receiving ship. For this operation, a Sylvania helicopter was used.

"Staging involves getting the cargo ready to be moved by helicopter or by the ships gear to the other ship," Lord said. "All pallets must be secure, that is strapped with strong binding material. In a vertical replenishment, each lift should weigh as close to 4,000 pounds as possible. That is the maximum safe load the helicopter can lift. If that average is maintained, the number of trips the helicopter has to make is held to a minimum. Effective control of loads expedites the operation and helps assure maximum utilization of the helicopter.

Pallet weights can be read on an indicator built into the forklift as the pallets are taken from the elevators and the job of grouping the loads and netting and securing for the helicopter lift begins.

During staging, pallet loads of stores are moved by forklift to the two elevators (port and starboard sides) which lift the stores to the helicopter deck. Pallet loads are also positioned on the main deck so that they can be moved quickly to

Chilled lettuce is hoisted from Rigel deck to a Navy ship during underway replenishment in the Atlantic.

either the flight deck for vertical replenishment operations, or to the various stations used for underway replenishments. It is not uncommon to have vertical and underway replenishments going on at the same time.

During the vertical replenishment of Waccamaw, as well as others, Lord hooked cargo pallets to the helicopters. "Each pallet is attached to a specially constructed pole, about seven feet long with a closed loop at the end. This loop must be attached to a pelican hook under the helicopter as it hovers overhead. This is just one of the jobs of the Rigel flight deck crew, which must signal the helo pilot coming in for the lifts, and indicate the weight of the lift being made. That is done by displaying the weight on a placard-size blackboard which is held by one of the flight deck crew for the pilot to see."

"There were a few moments when I had second thoughts about volunteering for that one," he said. "When the helicopter started to descend above me to where it was hovering just above my head, I felt kind of uneasy. Hell, I felt very uneasy. It's a job requiring coordination by everyone involved. All I wanted to do was hook the load onto the pelican hook and get out of there. But, I gained more confidence with each hook-up and became a regular participant in the flight deck operations."

During the 10 days Lord was aboard the Rigel, the vessel replenished USS Guadalcanal, Seattle, Conistego, America, Sylvania, Speigel Grove, Wood and Piedmont. All were accomplished without mishap.

"Rigel crewmen realize that safety precautions are a must at sea. One replenishment which took place in the dead of night with the destroyer Wood illustrates the dangers inherent in their jobs—and measures taken to reduce them.

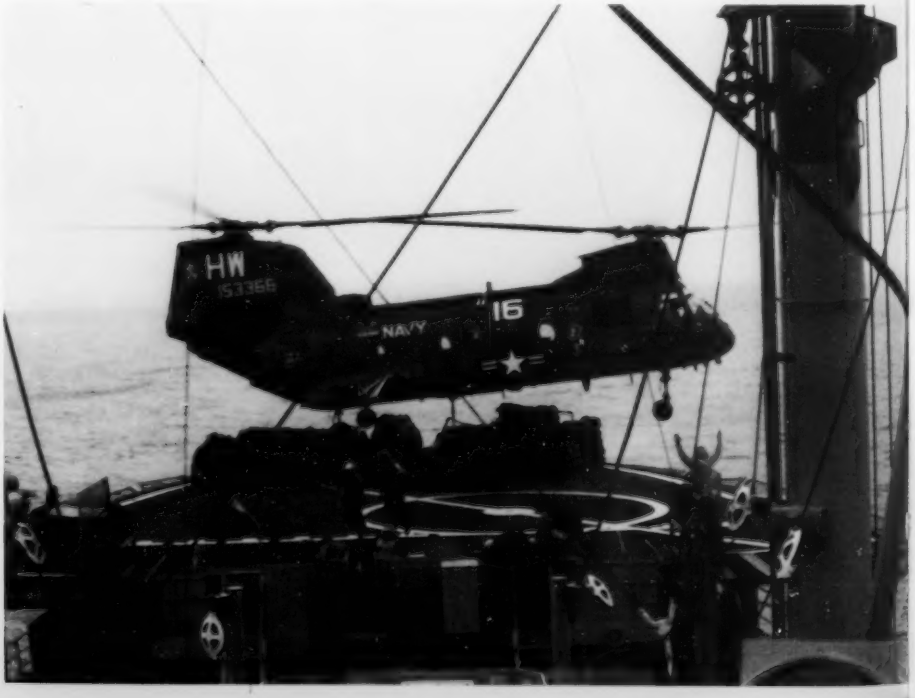
"With visibility drastically impaired, those taking part in the operation were super cautious. Chemical illuminators were attached to cargo to enable the winch drivers and those on the receiving ship to follow its movement and location. Illuminators also were attached to the life jackets of the men on deck. If a man had gone overboard, the illuminators would have been helpful in locating him."

"Protective clothing, such as foul weather gear, hard hats and safety shoes were worn when needed and Rigel crew members devoted their full attention to the task at hand," Lord said.

"Prior to each vertical replenishment, the Rigel flight deck crew removed debris from the helo pad such as wooden splinters from broken pallets, strapping material and anything else that could be taken into the helicopter exhaust. Safety is the name of the game in these operations."

Since the entire Rigel crew takes part in replenishment operations, cross-training is essential. "Rigel officers and crewmen displayed a great deal of self-confidence and pride, and rightfully so," Lord said. I found them to be highly professional and extremely knowledgeable.

"The voyage on the Rigel gave me a greater understanding of the complexity of the replenishment operations and the skills required to get the job done. It was a great learning experience, and I was very pleased that Capt. Vieira "renewed" my sea time after all these years by issuing me an official record of sea service." ⚓



Third Officer Edward Nanartowich (right) signals helo pilot to take it away as Bob Lord and Boatswain Mate Curtis Muller dash out of harm's way.

USNS Wilkes

USNS Wilkes – An Ocean Wanderer

By Louis Panarale

Photos by Kevin Manning

Joseph Conrad, a 19th century novelist who wrote about life at sea, in one of his novels described a ship that moved out to sea like "a fragment detached from the earth." That was Conrad's way of saying that ships are more than floating structures of wood or steel. To Conrad, ships were small planets "burdened with life," each in its own orbit and each intent upon its own destiny.

Conrad's description seems particularly appropriate for a recently reactivated MSC ship—USNS Wilkes.

Wilkes goes to sea with no port for its destination. Ports are only rest and supply points for crews of ships like the Wilkes. Their true destinations are marked on the grid lines of an ocean chart. Like a satellite that has its orbit plotted in advance, Wilkes is an instrument of men. The ship serves as an ocean-going technological center for oceanographic and geophysical survey.

The MSC manned ship was christened on July 31, 1969 in honor of Adm. Charles Wilkes (1798–1877), an Antarctic explorer and scientist credited with the discovery of Wake Island. He commanded the first scientific expedition ever initiated by the U.S. government—the exploration and survey of the South Pacific between 1838 and 1842.

Wilkes has been operated by MSC since 1971. Oceanographic research and geophysical survey operations are carried out by technicians of the Naval Oceanographic Office headquartered in Alexandria, Va. Forty-eight Civil Service mariners and 26 oceanographic technicians aboard Wilkes work together on programs that may last from six to nine months.

The ship is usually at sea for three-week periods followed by

Chief electrician Anthony Ratajczak applies his skills in preparing Wilkes for another ocean voyage.

breaks of four or five days in port. The breaks allow time to adjust equipment, to take on supplies and for rest and recreation.

Wilkes is equipped with deck machinery and laboratories that make it possible for technicians aboard the ship to conduct a wide range of sampling programs. Special underwater equipment relays television pictures, takes still photos, measures magnetic intensity, plots underwater terrain and takes samples from the ocean floor. Data obtained are stored in computers so that technical crews aboard Wilkes can prepare a complete report on their findings while the ship is still under way.

Capt. Robert Daugherty of Fort Lauderdale, Fla, has been master of the Wilkes since March when it was reactivated after being laid up for a year. No newcomer to oceanographic ships, Daugherty previously commanded the USNS Lynch and USNS Kane, sister ships of the Wilkes.

Daugherty said the master of an oceanographic ship is generally busy. In addition to normal duties, he must conduct a continuing training program to familiarize new MSC crewmen with the operation of some of the more complicated gear.

Civil Service mariners frequently assist the technical crew, and sometimes perform complicated tasks. It's not unusual for a technical crewman to become seasick in bad weather. "We keep the dramamine handy," Daugherty said.

Bad weather has a great impact on an oceanographic ship. "The kind of weather a ship encounters is extremely critical as to how successful a particular phase of the survey is going to be," Daugherty said. "The information we get in bad weather is questionable due to the pitching and rolling of the ship. But we do the best we can, and appreciate fine weather when we have it."

Daugherty said an oceanographic ship tries to follow the good weather. "Whenever possible we

Capt. Robert Daugherty: "The kind of weather a ship like this encounters is extremely critical."

Milton McCandless, chief engineer: "Every time we modify a piece of equipment, it will operate differently."

are scheduled to work north in the summer months and move in a southerly direction as winter approaches."

Most of the Wilkes crewmen have had experience on oceanographic ships which is the way Daugherty likes it. "We have the new people work with the more qualified men," Daugherty explained. "It takes a couple of weeks, sometimes less, for a new man to get the hang of operating some of the more sophisticated equipment."

First officer on the Wilkes is Otto Bortfeld of San Francisco. He is new to the Wilkes but not to the rigors of working on an oceanographic ship. He said it is helpful for a first officer of an oceanographic ship to be adept in human relations. "I have been on MSC oceanographic ships that have had three or four scientific groups aboard at the same time, plus the MSC Civil Service crew and some Navy personnel as well," Bortfeld said.

"With such a divergence of personnel, harmony is never taken for granted. Problems do come up. When you get a bunch of people on a ship that is rolling around on the ocean for about 20 days, you are going to have differing attitudes."

Bortfeld pointed out that each group has its own work to do but each is dependent on the other to get the job done. He said difficulties can arise when this is forgotten.

The responsibility of the MSC personnel is to put the ship where the technicians want it and to put out research gear. Sometimes we never see this equipment until it comes aboard. And that is when we have to learn what it is all about," Bortfeld said.

He noted that it was human nature for crew members to want to know what they are dropping over the side of the ship. "Often the meaning of our support tasks is not apparent to the crew or to me," he said. "But, we must have the attitude that research operations are the responsibility of the technicians, and they don't have to explain every piece of gear that we drop into the ocean. But I have found the sponsoring personnel of various organizations to be very helpful in explaining what they are doing," Bortfeld said.

"We are not dealing with things," Bortfeld said, "We are dealing with people who come aboard and want things done. And these are people who are not necessarily ship oriented. Their attitudes and their priorities may be a lot different than those of the MSC personnel."

Probably nobody knows this better than the members of the Wilkes' engineering department who have to maintain the gear and equipment on the ship. The chief engineer is Milton McCandless who became first assistant engineer on the Wilkes when it was acquired by MSC in 1971. He also has worked on other MSC operated oceanographic ships.

"We have to adjust to provide the service the technicians need and they have to adjust to what the ship and crew can do," McCandless said, noting that no two oceanographic ships are alike, even those with similar configurations. "When you learn the workings of a new ship, you find that the same kind of equipment will work a little differently, especially the machinery."

McCandless noted that technicians who come aboard must be made aware of the ship's capabilities, especially if the technicians have recently worked on another oceanographic ship.

McCandless feels one of the engineering department's toughest tasks is to provide steady electric power. He said even slight fluctuations in current can play havoc with the computers.

Sometimes a winch or a crane must be modified to do a special job. "Every time we modify a piece of equipment, it obviously will operate differently. That means we again have to teach someone how to operate it," McCandless said.

Aboard cargo ships, he said, "if a seaman learns to operate cargo gear on one ship he can operate the gear on almost any cargo ship. But it takes a special kind of seaman to adjust to the varying work routine on a ship like Wilkes." ⚓

Otto Bortfeld, first officer: "The responsibility of MSC personnel is to put the ship where the technicians want it."

While on active duty, Mellen worked with MSC in improving ocean towing and salvage operations.

The World of Delos Mellen: Tugs, Cotton and the Sea

Ask tugboat skipper Delos Mellen where he comes from and he will tell you, "I'm a New Yorker by birth and a Cajun by osmosis." Ask him what he does for a living and he answers, "anything that is interesting and challenging."

Delos Mellen looks as sturdy and reliable as the commercial deep-sea tugs he operates. His brownish beard is flecked with grey. His outdoor activities keep him tanned the year round. When you meet him, he greets you with a smile and a firm handshake. There is no rule that says tugboat operators must have a certain carriage or personality, but somehow Mellen looks like he belongs at the helm of a tug.

Mellen was born in New York in 1920. When he was five years old his parents decided to move to Gulfport, Miss. where his father began a cotton baling business. The cotton is compressed so that it takes up a minimum of space aboard ships that transport it overseas.

Gulfport is in the heart of Cajun territory, a general designation for southwestern Alabama, southern Mississippi and the bayou lands of southern Louisiana. Cajuns were descendents of French Canadians who settled in the South in the 18th century. Mellen is not Cajun but says he has become one by osmosis

through close association with them since childhood. Modern-day Cajuns are a mixture of French Canadian, Spanish, Indian and black ancestries.

There are reasons why Mellen still makes Gulfport his home even though he is away most of the time as a licensed master of commercial deep-sea tugs. One is the cotton compressing business which he, his brother and his 88-year-old father run. The 55-year-old Mellen is married and has a daughter.

But Mellen says it is more than business and family ties that give him roots in Gulfport. It is the people. Mellen has a deep respect for his Cajun friends. "Some of them don't have much education but they are superb small boat handlers," he said. His knowledge of seamanship came through his association with small boat operators of the southern Gulf states.

Mellen explained that fishermen from the Gulf states, especially Cajuns from south central Louisiana, began a tradition of small boat operations after World War II with the development of offshore oil wells. "From 1947 to 1949, the only vessels used for offshore supply operations in the Gulf of Mexico were converted shrimp trawlers, tuna boats and a rash of ex-military patrol craft, rescue boats and landing craft," Mellen recalled. "It was a real mish-mash."

Mellen believes the Cajun's ability to operate tugs and barges is unsurpassed in the world. He pointed out that Cajuns are recruited to work in offshore oil operations in Latin America, Africa, England and Singapore.

Mellen is a chief quartermaster in the U.S. Naval Reserve. This summer he served 30 days active duty for training at MSC headquarters in Washington. His primary task was to assist MSC staff members in improving ocean towing and salvage operations. He also worked with MSC staff members analyzing methods of moving cargo to Alaska by tug and barge and deep draft ships.

Provisions were made for Mellen to perform part of his duty with the amphibious and special mission ships division of Naval Sea Systems Command. The division is involved in procurement of eight new fleet tugs which will be used for salvaging and towing battle-damaged and non-operational ships. The tugs will also be used for diving operations, oil spill cleanups and fighting shipboard fires. All will be operated by MSC.

Mellen was asked to review and comment on the program. After he completed his assignment, Naval Sea Systems Command Commander Adm. Robert C. Gooding sent MSC a letter of appreciation for allowing Mellen to work with his organization.

"His experience as master of ocean-going tugs and supply ships has been most helpful," Admiral Gooding said. "He has provided many pertinent and useful comments on how the new tugs will be used and the arrangement of deck gear. In particular, his knowledge and assistance on how various tows may be rigged were most beneficial."

Mellen is a licensed master of motor freight and towing vessels. He also has had experience as a diver. But, because of his age, his diving is now limited to 150 feet. He has an FCC radio-telephone operators permit and has worked out of New York as a purser and third officer of passenger liners, cargo ships and tankers.

He was a master sergeant assigned to Army Intelligence during World War II. He did another Army hitch during the Korean conflict and re-entered civilian life in 1956. Because of his Army Intelligence training, Mellen speaks Russian and German.

In keeping with his philosophy of looking for the job that is challenging and interesting, Mellen took on a big one for Sea-Land Service, Inc. in December 1972. He towed two massive A-frame container cranes on a barge from Port Newark, N.J. to New Orleans and Houston, a journey of 1,900 miles. Sea-Land officials said it was the first time cranes of this type were transported such a distance in that manner.

Each crane was broken into two sections and lifted aboard the converted tanker barge with a heavy-lift derrick crane.

"It was the tallest cargo ever moved out of New York Harbor," Mellon said. The cargo height on the barge was 135 feet. At nominal tide, the clearance under the Central New Jersey Railroad bridge was also 135 feet. Fortunately the clearance estimate was liberal enough to allow the cargo to pass under the bridge with a couple of feet to spare. "But I had to aim smack in the middle," Mellen said.

Mellen said the 380-foot ocean-going tug hauled the barge to New Orleans and Houston with little difficulty. Mellen encountered some rough weather off Cape Hatteras but the barge, tethered to the tug with 1,500 feet of towing cable, gave Mellen no trouble.

There have been other times when luck was not on his side. Mellen recalled the time in 1963 when he did a favor for a friend in New Orleans who had sold a crew boat to a man from the Virgin Islands who wanted to run the boat to the islands. The problem was that neither the new owner nor four Virgin Islanders who accompanied him knew how to sail the open seas.

Mellen was asked by his friend to captain the boat from New Orleans to Key West, Fla. with Virgin Islanders as his crew. At Key West, they picked up the new owner who took command. Mellen was to stay aboard, acting as guide and navigator to San Juan, Puerto Rico. From there, with familiar islands always in sight, the Virgin Islanders were to make the short journey home without Mellen.

On their way to Puerto Rico Mellen noticed that the boat was not taking the proper heading. He went to the wheelhouse to check. He found that the helmsman was several degrees off course and was disturbed because he could not see land. Mellen then directed the

helmsman how to get back on course. This was not easy because the compass was defective and the radar was not working.

"We were off the northeast coast of Cuba but well within international waters when I noticed a boat heading in our direction," Mellen recalled. "I thought it was a Cuban shrimp boat. I let the boat catch up with us because I wanted to ask the Cubans if I was holding the correct bearing."

As the boat came closer Mellen realized it was a gun boat. The Cubans fired machine gun bursts over the crew boat and pulled alongside. Armed Cubans boarded the boat and told Mellen to cut the engines.

The crew boat was towed to shore where Mellen and the five Virgin Islanders were put under guard. The next day they were hustled into cars and driven to a prison.

"I was subjected to 36 hours of intensive interrogation," Mellen recalled. "My briefcase held papers identifying me as a U.S. Navy reservist and a former member of Army Intelligence." For two more weeks Mellen was periodically interrogated. At one point he was told he would be executed because the Cubans were sure that he was a spy.

Then one afternoon Mellen and the others were released after the Cubans billed them $852 for their stay, which happened to be all the money the captives had in their pockets. They were driven back to the crew boat and were allowed to proceed to San Juan where Mellen eagerly parted company with his friends from the Virgin Islands.

Lately, Mellen has been tending to the family business in Gulfport. But he says he is looking around for something challenging to do, which means he is itching to get back to sea. So it should not be too long before the shrill of a tug's whistle is heard in some port. And at the helm will be a husky bearded skipper from Gulfport, doing what he likes best.—L A P

Mellen is a licensed master of motor freight and towing vessels.

Photos by Stephen McHenry

Grateful refugees pose with Captain Wolfe (rear center) after a successful escape from Vietnam.

Vietnamese Survive, Thanks to Hudson Crew

By YN1 John L. Curtis

There was an air of desperation in the way 47 Vietnamese men, women and children crowded into a 50-foot diesel powered boat that quietly stole out to sea from Saigon in mid-August.

For one thing, they did not have any particular destination in mind. They just wanted to get out of Vietnam and take their chances on making it to some free world port.

Two fishermen operated the boat but they had practically no experience in open ocean navigation. In all, there were 19 men, 18 women and 10 children. Most of the adults were professional people, doctors, a dentist, businessmen, educators, plus students and the two fishermen. They comprised five families.

Their fuel and food supplies would last them less than three days, but with a now-or-never attitude they decided to take their chances. They were fleeing Vietnam because they were disenchanted with the Communist government.

On Sunday, three days later, the MSC tanker USNS Hudson was in the South China Sea enroute to Bahrain in the Middle East from Okinawa. From the bridge the men on watch spotted a small wooden boat. Someone aboard the boat was flashing a mirror to get their attention.

When the Hudson approached the boat, leaders of the refugee group said they were out of food, water and fuel. Capt. Robert Wolfe of the Hudson gave the refugees provisions and 900 quarts of diesel oil.

But, Captain Wolfe realized the refugees had many things against them. The sea was getting rougher. The Vietnamese fishermen, inexperienced on the open sea, were going to have a rough time handling the small wooden boat. The passengers were in generally poor physical condition. Wolfe was told that one woman was unconscious and in need of medical attention. Finally, there was the question of safety of the children, some of them infants. Based on all of these factors, Captain Wolfe decided that the refugees must be taken aboard USNS Hudson to assure their survival, as the refugees had initially requested.

Aboard Hudson the refugees were

Ten children were among the 47 refugees.

given places to sleep, hot showers and food. Wolfe then decided to take the refugees to Subic Bay, the Philippines, where MSC has an office. Outside of Subic Bay, Wolfe was in communication with Commander William G. McHenry, commanding officer of MSC Subic Bay office, and Rear Adm. Thomas J. Kilcline, commander of U.S. Naval Forces, Philippines.

Wolfe was told to keep Hudson in international waters until clearance for the refugees to enter the Philippines could be obtained. But because Hudson had an injured crewman, the ship was allowed to temporarily dock at the Naval Supply Depot.

The injured crewman was able bodied seaman Bryan Dykstra, 27. Dykstra had injured his back while lifting a Vietnamese woman on board Hudson during the refugee recovery operation. He was transferred to Naval Hospital, Subic Bay, for treatment.

The ship was moved back into international waters for a day and then was granted permission to reenter port to wait for clearance from the Philippine government to discharge the refugees.

Hudson is a 37,000-deadweight-ton Columbia class tanker chartered by MSC from Falcon Carriers, Inc., New York. The ship is manned by civilian seamen and operated by Mount Shipping Co., New York, under a contract with the command.

Hudson and its passengers remained in Subic Bay until August 28 when the master was directed to transport the refugees 80 miles southeast to Manila where they were turned over to United Nations officials.

Spokeswoman for the refugees was Nguyen Thi To Vinh, a graduate from Harvard Dental School. She said the refugees want to settle in the United States where some of them have relatives.

Some of the Vietnamese refugees wept in gratitude as they left the Hudson, said goodby to crew members, and expressed their appreciation for the assistance given them by the crew. ⚓

Tired but happy, a Vietnamese family rests on deck of the Hudson.

New Offices fo

All boxes have been unpacked, telephones and equipment hooked up and family photographs are again in place on desk tops and members of the Military Sealift Command information systems office are back to work—interrupted only temporarily by their move from Washington, D.C. to new office spaces in the Nassif Building at 5611 Columbia Pike, Falls Church, Va.

The division now occupies rooms 502, 508, 520 and 524 as well as the basement in a building that also houses the headquarters of the Army's Military Traffic Management Command (MTMC). For the past three years, the MSC information systems office had been located at 5125 MacArthur Boulevard—about two miles from MSC headquarters in the Tamol Building.

Deputy Secretary of Defense William P. Clements, Jr. directed the move last February to take place by Oct. 1, 1976. Among reasons for colocating the MSC automatic processing office with that of MTMC was reduced cost. MSC needed a newer and more sophisticated computer system. By sharing that of MTMC, that need was eliminated. Space costs also were reduced.

The command information systems office supports MSC headquarters divisions and area commands. Financial and statistical data are recorded on the MSC computer as well as supply, engineering, operational and logistical information.

Presently, MSC is sharing MTMC computer capability. Eventually, the older MSC computer will be disposed of and all MSC data will be processed on MTMC computer equipment which is more modern than that MSC now operates. This will enable the information to be more readily available to MSC headquarters via remote terminals which will be installed in the Tamol Building along with a remote printer.

The division's 43 employees did the packing for the move. More than 4,000 computer tapes required 130 boxes.

Main entrance to Nassif Building where the MSC information system is now housed.

Helen Lilley, a computer operator, changes tape.

oComputers

Photos by Rene Chisley

Ralph Rather delivers mail between headquarters and the Nassif Building.

Tape librarian Margarita Miles checks custody card for one of more than 4,000 computer tapes.

Kane Commercial and Office Movers of Washington, D.C., hired to move all equipment and office supplies except the computer, handled some 1,500 boxes. The computer, a Honeywell Series 200, Model 1200, was relocated by Honeywell, Inc.

Peter Haskins of the office services division said the move went smoothly. "Nothing was lost or broken," Haskins said. "Everything wound up in the right place, in good condition, mostly because of effective planning."

Haskins and Lorretta Clay, director of the office services division, supervised the move which took place August 20th and 27th. On the first day, the systems planning and systems support divisions were moved. On August 27th equipment of the systems development division and all computer gear were transported to the new offices. The MSC computer was operational the next day.

Before the move took place, the office services division arranged for the installation of carpeting and draperies. Telephones were also installed.

"When the command information systems office moved to the old MacArthur Boulevard address," Haskins said, "several calculators, typewriters, and adding machines were lost in the move. This time, office equipment was stored at headquarters until employees reported to work. Then it was moved and not one thing was reported missing."

None of the 43 information systems office employees left his job because of the office relocation although for some the move meant longer commuting time. When possible, working hours for those who encountered commuting difficulties have been adjusted.

To facilitate communication and travel between the headquarters building and the new location of MSC computers, regular messenger runs have been scheduled. LMQ

Treasures of the Sea

By Linda Quinones

Almost everyone realizes the value of gold, silver, diamonds and other rare substances. The worth of sea shells, however, is a little harder to determine, even though, throughout the ages, they have had both aesthetic and monetary value.

People the world over have admired the beauty of sea shells, the skeletal covering secreted by most mollusks for protection from enemies and the elements. Shells, of which there are countless varieties, fall into two major categories, univalves and bivalves. Univalves are single shells, bivalves, two shells hinged together.

Colors of some shells are more spectacular than a rainbow and no two are exactly alike, either in shape or size. The patterns they display, formed of stripes or spots of color, also are unique to each individual shell.

Archeologists who unearthed tombs of Egyptian queens discovered many wore jewelry made of sea shells. Many of the shells fashioned into ornaments for the Pharaohs and their families came from the Red Sea instead of the closer Mediterranean or Nile. Transporting the shells over such a long distance enhanced their value and made them worthy of royal possession.

Strings of shell beads dangled from the tomahawks and clothing of American Indians. Used as a form of currency, shells worn by the American Indians also served another purpose. By wearing shell adorned belts, bracelets and necklaces, they could display their wealth as well as embellish tribal costumes.

Some years ago, fashionable ladies wore cameos made from helmet shells, heavy shells characterized by small, blunt spikes.

Layered with different colors, they were used to make the finest cameos. By carving a face, figure or scene in the top layer of shell and cutting away the rest, a different color was revealed.

Homecoming sailors during the early 19th century used beautiful shells to express their sentiments. Many carried home a "Sailors' Valentine," which consisted of skillfully arranged shells attached to a wooden box-like frame. The shells usually spelled out inscriptions such as "Love the Giver," and "Remember Me." In her book, "The Romance of Shells," Louise Allderdice Travers said the valentines were most likely made in Barbados by natives.

Univalve shells used as trumpets have played a prominent role in religious services throughout history. The tones produced by shell trumpets have a great range. Some sound strange and eerie. Others produce a long, deep-toned sound, and still others, a startling shrill note.

In Japan the Triton Trumpet shell takes the place of the church bell and Shinto priests use them to call people to worship.

A single note of a shell trumpet is used in processions in India and as a musical accompaniment to religious ceremonies. The Hindu god Vishnu is never portrayed without a tubinella shell, a graceful, delicately colored snail shell. When praying, a Hindu clasps the shell in his hand, believing that without it his prayers would not be heard.

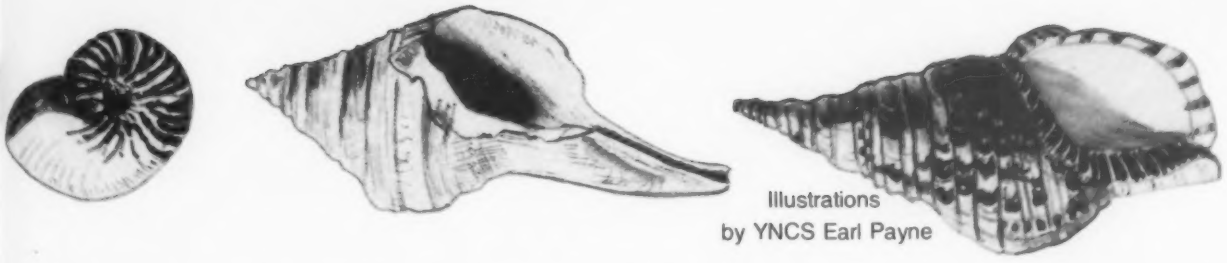
In the Far East, window shells were used for the purpose their name implies, to make small window panes. Of great commercial value, the window shell is smoky gray and made up of many layers which can be easily pulled apart. Large enough to be cut into squares, they were placed in wooden frames.

The symbol of St. James, a scallop shell, appeared on many coats of arms and religious objects during the Crusades. During the Middle Ages pilgrims visiting the shrine of St. James at Compostella, Spain, now Santiago, often brought back scallop shells as proof of their visit.

In an indirect way, legend credits several shells with saving the life of a Filipino school teacher during World War II. Through shell trading the school teacher had come to know a Japanese professor at the University of Kyoto who was also the son of a famous general.

After the attack on Pearl Harbor, the Filipino went into hiding. He soon learned that the professor had come to Manila and was looking for him. Fearful, the Filipino sent a messenger to determine why the professor wanted to see him. The messenger was told the professor wished only to offer the Filipino a job and that there was no reason to be alarmed.

The professor sent several shells to his Filipino friend, along with some of his calling cards as a sign of goodwill. Soon afterward, the school teacher's hiding place was discovered, but the cards identified him as a friend of a member



Illustrations
by YNCS Earl Payne

of a highly esteemed Japanese family, and he was set free.

Because of their beauty and uniqueness, shells have long captivated painters, sculptors, architects and designers.

During the Renaissance, a noted Italian sculptor, Gian Lorenzo Bernini, made his famous Triton fountain in Rome in which a shell is the main feature. Many Rome fountains incorporate shells for they make a natural basin, and tilted snail-like shells or conches make perfect spouts.

Leonardo da Vinci, credited with designing the first spiral staircase, drew his inspiration for the design from a shell. In his notes he tells of conceiving the idea from studying the simple snail shell with its interior spiral whorls.

Great architects of Greece, around 400 B.C., found the inspiration for scroll-shaped volutes of the Ionic column in the growing circle of the interior of the chambered nautilus. The chambered nautilus is a spiral shaped shell with a pearly interior.

Shells also have been depicted in the works of famous artists both in modern times and past centuries.

In Sandro Botticelli's painting "Birth of Venus," painted during the Renaissance period, a scallop shell called the Venus floats on the water where Titian's Anadyomene is bathing.

A mural Salvatore Dali was commissioned to paint by the Spanish government for exhibition at the Brussels Fair in 1958 depicts St. James riding a white steed in the heavens over Spain. Symbolically, the horse's harness is elaborately decorated with likenesses of scallop shells.

The pleasing shapes of many sea shells influenced design of furnishings as they did architecture.

Rococo, an artistic style characterized by fanciful curved spatial forms and shell work was very popular during the 18th century. This elaboration was sometimes known as coquillage, a term that came into use in France about 1740. It came from the word for shell, coquille.

Carved likenesses of scallop shells adorned the backs of chairs, centers of headboards and tops of mirrors during this period.

The shell motif was soon carried over to china ware and silver craft. Shell designs decorated sets of china dishes with silversmiths using shell shapes for trays.

Mother-of-pearl, the hard, iridescent substance forming the inner layer of shells, also became fashionable in the 18th century. Inlaid table tops, boxes and many other items were decorated with mother-of-pearl. In fact, mother-of-pearl was so much in demand it was imported by England in large quantities.

One mother-of-pearl importer, the Shell Transport and Trading Co., later profited enough to expand into the oil business. The scallop shell remains a symbol of the company, known today as Shell Oil Co.

The use of whole sea shells for decorative purposes has also been popular over the years. Shells lined entire walls in homes at the peak of the rococo era.

A small cottage built in 1780 on the grounds of Rambouillet Park in France was elaborately decorated with shells. Now the official country residence of the President of France, the little house is known as Shell Cottage. Duc de Penthievre commissioned the building of the cottage as a gift to Princesse de Lamballe, his son's widow, hoping she might find solace in its beauty. Shells of every size, periwinkles, mussels, oysters, clam and scallop shells adorn the cottage walls.

Another surviving shell house is at Goodwood Park, England. Built in 1780, it was the ancestral estake of the Dukes of Richmond and Gordon. The shell mosaics that line the walls and domed ceiling, done entirely by the Duchess of Richmond and her daughters, took more than seven years to complete.

Less elaborate endeavors were accomplished by women during the rococo period, with shell work becoming a popular hobby. They made delicate figurines with clothing formed of tiny shells and elaborate flower arrangements, choosing Mediterranean shells to match the natural color of the flowers.

Interest in similar shell work has been renewed in recent years with the craft of shell decoupage. Kits contain everything needed to produce a work of shell art, and loose shells, usually only sold at waterfront gift shops, now are stocked in great variety in many hobby stores.

A little glue, imagination, and a colorful array of various shaped and sized shells are all that is needed. ⚓

A seaman atop the mast of USNS Wilkes drops lines to hang flags for the nation's bicentennial. A Fourth of July open house was held aboard Wilkes at the Washington Navy Yard. The MSC operated vessel serves as an ocean-going technological center for oceanographic and geophysical surveys. Story on page 11.

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